COTTON REGION REPORTS.

In the table below are shown the average precipitation and the means of the maximum and minimum temperatures for August, 1884, in the cotton region districts, with the August averages for the two preceding years. From a comparison of these averages it will be seen that in all of the districts, with the exception of that of Charleston, the precipitation was below the average; the deficiencies exceeding three inches in the districts of Atlanta and New Orleans. The means of the minimum temperatures were lower in all districts except for Charleston, while the means of the maximum temperatures do not show any marked departures:

Temperature and rainfall data for the cotton districts, August, 1884.

Districts.	Rainfall.			Temperature.							
				Maximum.			Minimum.			Extremes for Aug., 1884.	
	Average for Aug. of two preceding years.	Average for Aug., 1884.	Departures.	Mean for Aug. of two preceding years.	Mean for Aug., 1884.	Departures.	Mean for Aug. of two preceding years.	Mean for Aug., 1884.	Departures.	Max.	Min.
				°	°	°	°	°	°	°	°
New Orleans	5.54	1.93	— 3.61	90.4	92.4	+ 2.0	71.2	69.3	— 1.9	104	56
Savannah	5.92	4.20	— 1.72	90.8	90.4	— 0.4	71.2	69.7	— 1.5	102	53
Charleston	5.89	6.04	+ 0.15	90.2	88.5	— 1.7	68.7	69 1	+ 0.4	98	55
Atlanta	5.51	2.05	— 3.46	87.4	88.0	+ 0.6	67.2	66.6	— 0.6	100	43
Wilmington	4.60	3.75	— 0.85	88.2	88.3	0.1	67.6	66.7	— 0.9	99	52
Memphis	3.85	1.76	— 2.09	87.3	89.0	+ 1.7	66.1	64.7	— 1.4	100	45
Galveston	3.17	1.61	— 1.56	94.0	93.9	— 0.1	71.8	66.6	— 5.2	104	47
Vicksburg	3.63	3.33	— 0.30	90.8	90.6	— 0.2	69.7	68.0	— 1.7	100	57
Montgomery	3.58	2.65	— 0.93	90.4	89.8	— 0.6	68.7	66.1	— 2.6	104	52
Augusta	3.70	3.53	— 0.17	89.4	89.7	+ 0.3	68.4	66.1	— 2.3	103	52
Little Rock	3.42	1.54	— 1.88	90.1	90.0	— 0.1	65.4	64.9	— 0.5	104	40
Mobile	3.64	1.68	— 1.96	92.0	92.0	normal	69.4	67.5	— 1.9	100	50

WINDS.

The most frequent directions of the winds during the month of August, 1884, are shown on chart ii. by arrows flying with the wind. In New England, the prevailing winds were southerly; in the middle Atlantic states they were northeasterly along the coast from Atlantic City, New Jersey, to Norfolk, Virginia, and southerly at the inland stations and at Sandy Hook, New Jersey, and New York City; in the south Atlantic states they were northeasterly; in the lake region, Ohio valley, east Gulf states, and in the north Pacific coast they were variable; in the extreme northwest, upper Mississippi and Missouri valleys, and in the west Gulf states they were mostly from the south.

TOTAL MOVEMENTS OF THE AIR.

[*In miles.*]

In the following table are given the stations reporting the largest and smallest total movements of the air in each of the various districts:

Districts.	Stations reporting largest.	Miles.	Stations reporting smallest.	Miles.
New England	Block Island, R. I	7,452	Eastport, Maine	3,133
Middle Atlantic states	Del. Breakwater, Del	9,192	Lynchburg, Va	1,890
South Atlantic states	Kitty Hawk, N. C	10,441	Augusta, Ga	2,818
Florida peninsula	Key West	5,356	Sanford	3,209
Eastern Gulf states	Pensacola, Fla	4,385	Montgomery, Ala	2,829
Western Gulf states	Indianola, Tex	6,610	Little Rock, Ark	2,533
Rio Grande valley	Rio Grande City, Tex	5,392	Brownsville, Tex	4,884
Tennessee	Nashville	3,100	Chattanooga	2,798
Ohio valley	Louisville, Ky	3,746	Cincinnati, Ohio	3 165
Lower lake region	Sandusky, Ohio	7,588	Toledo, Ohio	4,754
Upper lake region	Grand Haven, Mich	7,045	Chicago, Ill	4,990
Extreme northwest	Fort Totten, Dakota	9,828	Bismarck, Dak	5,858
Upper Mississippi valley	Saint Louis, Mo	7,411	Dubuque, Iowa	5,278
Missouri valley	Huron, Dak	7,030	Yankton, Dak	3,113
Northern slope	Cheyenne, Wyo	6,741	Deadwood, Dak	2,163
Middle slope	Dodge City, Kan	8,874	Denver, Colo	4,475
Southern slope	Fort Stockton, Tex	7,146	Fort Concho, Tex	6,170
Southern plateau	Fort Grant, Ariz	3,828	El Paso, Tex	1,474
Middle Plateau	Salt Lake City, Utah	3,492		
Northern plateau	Dayton, Wash. T	4,320	Lewiston, Idaho	987
North Pacific coast region	Fort Canby, Wash T	5,503	Olympia, Wash. T	1,225
Middle Pacific coast region	Cape Mendocino, Cal	16,448	Red Bluff, Cal	3,492
South Pacific coast region	San Diego, Cal	4,367	Los Angeles, Cal	3,995

The total movements of the air on the summits of Mount Washington, New Hampshire and Pike's Peak, Colorado, were 20,870 and 9,113, respectively.

HIGH WINDS.

On the Summit of Mount Washington, New Hampshire, the following high velocities were registered: 71, nw., 1st; 60, nw., 2d; 52, s., 4th; 50, s., 5th and 6th; 60, n., 15th; 59, sw., 22d; 56, sw., 23d: 80, nw., 24th; 56, nw., 25th; 72, sw., 26th; 64, w., 27th; 88, (maximum), se., 29th.

Other stations reporting high velocities are as follows:

Cape Mendocino, California, 52, se., 2d.
Fort Custer, Montana, 52, nw., 15th.
Pike's Peak, Colorado, 52, w., 20th.
Cape May, New Jersey, 52, s., 22d.
Delaware Breakwater, Delaware, 53, sw., 22d.
Fort Assinaboine, Montana, 48, se., 27th.
Fort Maginnis, Montana, 48, nw., 1st.
Saint Paul, Minnesota, 46, se., 19th.

LOCAL STORMS AND TORNADOES.

California.—San Diego: at about 3 p. m. on the 22d a heavy rain and hail-storm occurred at Riverside, San Bernardino county. The most violent part of the storm was of about thirty minutes duration. About three inches of rain fell, flooding the cellars and submerging the streets. The width of the storm was about three miles, very little rain having fallen at Colton, and none at San Bernardino; some damage was caused by the high wind.

Dakota.—Huron, Beadle county: at 3 p. m. on the 28th a funnel-shaped tornado cloud was observed north of this station moving rapidly in a south-southeasterly direction. Nearly everything within the storm's path, which was from eighty to one hundred yards wide, was destroyed. It passed within three-fourths of a mile of Huron, travelling at an estimated velocity of forty miles per hour. The tornado passed through Beadle, Miner, Hanson, McCook and Hutchinson counties, and resulted in the loss of six lives. The maximum wind velocity at Huron during the passage of the tornado was twenty-three miles per hour.

Mitchell, Davison county: on the afternoon of the 28th, there were three funnel-shaped tornado clouds observed from this place. They were plainly visible and carried sand and dust to a great height into the air. A high wind prevailed at Mitchell, but no damage was done.

Sioux Falls, Minnehaha county: the storm of the 28th caused no damage at this place, but on a farm six miles north, a dwelling and all of the outbuildings were destroyed. A man, who was caught in the storm, was carried high into the air and thrown to the ground and instantly killed. The storm passed four miles west of Sioux Falls, leaving a well-defined path eighty yards in width. Four dwellings, with numerous other buildings, were destroyed, and a number of persons were killed.

Florida.—Jacksonville: a severe thunder storm accompanied by heavy rain prevailed at this place from 6.35 to 7.40 p. m. on the 8th. The storm moved from west to east, and was accompanied by a remarkable electrical display; considerable damwas done by lightning.

Illinois.—Cairo: a thunder storm, passing from northwest to southeast, occurred at 4 p. m. on the 27th. In thirty-seven minutes 1.12 inches of rain fell, and for five minutes the wind blew at the rate of thirty miles per hour. The storm which occurred on the 29th is reported to have caused considerable damage to the corn crop in Alexander county.

Carmi, White county: a severe wind and rain storm occurred on the morning of the 29th. Several buildings were damaged and the corn crop throughout this county was seriously injured. At the village of Centreville, eight miles north, much damage was done, and at Phillipstown a number of buildings were blown down.

Indiana.—Evansville, Vanderburg county: a violent storm visited this part of the Ohio valley on the morning of the 29th, during which the transfer steamer "Belmont," plying between Evansville, and Henderson, Kentucky, was capsized and sunk, when near Stanley's Landing. The storm struck the steamer when about five miles below Evansville, where she was capsized